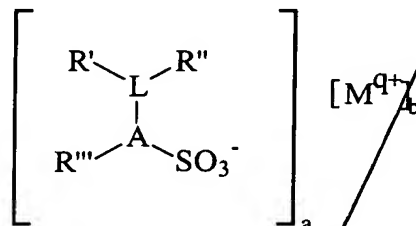


1. A surfactant composition comprising:
alkylarylsulfonate surfactant system comprising at least two isomers of the
alkylarylsulfonate surfactant of the formula:



5 wherein:

L is an acyclic aliphatic hydrocarbyl of from 6 to 18 carbon atoms in total;

M is a cation or cation mixture and q is the valence thereof;

a and b are numbers selected such that said composition is electroneutral;

R' is selected from H and C₁ to C₃ alkyl;

10 R'' is selected from H and C₁ to C₃ alkyl;

R''' is selected from H and C₁ to C₃ alkyl;

both R' and R'' are nonterminally attached to L and at least one of R' and R''
is C₁ to C₃ alkyl; and

A is aryl; and

15 wherein:

said alkylarylsulfonate surfactant system comprises two or more isomers
with respect to positions of attachment of R', R'' and A to L;

in at least 60% of said alkylarylsulfonate surfactant system, A is attached to
L in the position which is selected from positions alpha- and beta- to either
20 of the two terminal carbon atoms thereof; and

wherein further said alkylarylsulfonate surfactant system has at least one of the
following properties:

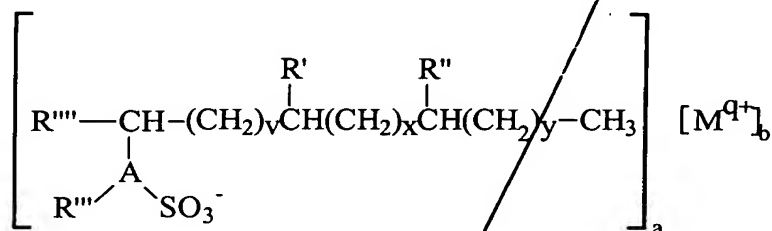
said alkylarylsulfonate surfactant system has a ratio of nonquaternary to
quaternary carbon atoms in L of at least 10:1 by weight, when said
25 quaternary carbon atoms are present; and

there is no more than 40% by weight loss as measured by Hardness
Tolerance Test.

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2. A surfactant composition comprising:

alkylarylsulfonate surfactant system comprising at least two isomers, counted exclusive of ortho-, meta-, para-, and stereoisomers, of an alkylarylsulfonate surfactant of the formula:



wherein M is a cation, q is the valence of said cation, a and b are numbers selected such that said composition is electroneutral; A is aryl; R''' is selected from H and C₁ to C₃ alkyl; R' is selected from hydrogen and C₁ to C₃ alkyl; R'' is selected from hydrogen and C₁ to C₃ alkyl; and R''' is selected from hydrogen and C₁ to C₄ alkyl; v is an integer from 0 to 10; x is an integer from 0 to 10; y is an integer from 0 to 10; wherein:

the total number of carbon atoms attached to A is less than 20;

said alkylarylsulfonate surfactant system comprises two or more isomers with respect to positions of attachment of R', R'' and A to the moiety

R'''-C(-)H(CH₂)_vC(-)H(CH₂)_xC(-)H(CH₂)_y-CH₃ of this formula;

at least one of R' and R'' is C₁ to C₃ alkyl; when R''' is C₁, the sum of v + x + y is at least 1; and when R''' is H, the sum of v + x + y is at least 2; and

in at least 60% of said alkylarylsulfonate surfactant system, A is attached to the moiety

R'''-C(-)H(CH₂)_vC(-)H(CH₂)_xC(-)H(CH₂)_y-CH₃ in the position which is selected from positions alpha- and beta- to either of the two terminal carbon atoms thereof;

wherein further said alkylarylsulfonate surfactant system has at least one of the following properties:

said alkylarylsulfonate surfactant system has a ratio of nonquaternary to quaternary carbon atoms in the moiety

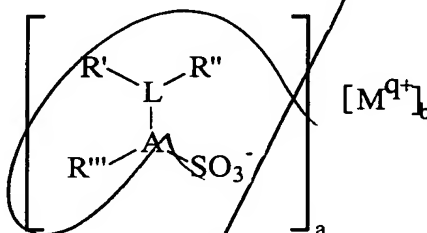
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$R'''-C(-)H(CH_2)_vC(-)H(CH_2)_xC(-)H(CH_2)_y-CH_3$ of at least 10:1 by weight, when said quaternary carbon atoms are present; and there is no more than 40% by weight loss as measured by Hardness Tolerance Test.

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3. A surfactant composition comprising:

a) from 0.01% to 99.99% by weight of an alkylarylsulfonate surfactant system comprising at least two isomers of the alkylarylsulfonate surfactant of the formula:



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wherein:

L is an acyclic aliphatic hydrocarbyl of from 6 to 18 carbon atoms in total;

M is a cation or cation mixture and q is the valence thereof;

a and b are numbers selected such that said composition is electroneutral;

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R' is selected from H and C₁ to C₃ alkyl;

R'' is selected from H and C₁ to C₃ alkyl;

R''' is selected from H and C₁ to C₃ alkyl;

both R' and R'' are nonterminally attached to said L and at least one of R' and R'' is C₁ to C₃ alkyl; and

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A is aryl; and

wherein:

said alkylarylsulfonate surfactant system comprises two or more isomers with respect to positions of attachment of R', R'' and A to L;

in at least 60% of said alkylarylsulfonate surfactant system, A is attached to L in the position which is selected from positions alpha- and beta- to either of the two terminal carbon atoms thereof; and

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wherein further said alkylarylsulfonate surfactant system has at least one of the following properties:

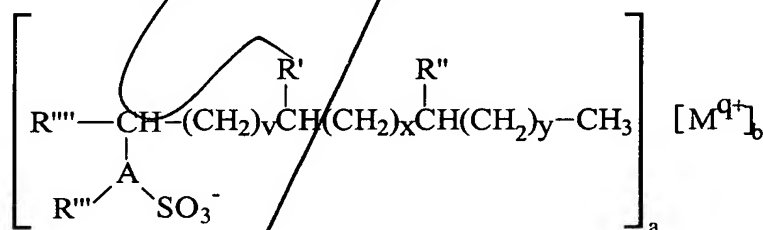
said alkylarylsulfonate surfactant system has a ratio of nonquaternary to quaternary carbon atoms in L of at least 10:1 by weight, when said quaternary carbon atoms are present; and

there is no more than 40% by weight loss as measured by Hardness Tolerance Test; and

b) from 0.01% to 99.99% by weight of at least one isomer of the linear analog of said alkylarylsulfonate surfactant (a).

4. A surfactant composition comprising:

a) from 0.01% to 99.99% by weight of an alkylarylsulfonate surfactant system comprising at least two isomers, counted exclusive of ortho-, meta-, para- and stereoisomers, of an alkylarylsulfonate surfactant of the formula:



wherein M is a cation, q is the valence of said cation, a and b are numbers selected such that said composition is electroneutral; A is aryl; R''' is selected from H and C₁ to C₃ alkyl; R' is selected from hydrogen and C₁ to C₃ alkyl; R'' is selected from hydrogen and C₁ to C₃ alkyl; and R''' is selected from hydrogen and C₁ to C₄ alkyl; v is an integer from 0 to 10; x is an integer from 0 to 10; y is an integer from 0 to 10; wherein:

the total number of carbon atoms attached to A is less than 20;

said alkylarylsulfonate surfactant system comprises two or more isomers with respect to positions of attachment of R', R'' and A to the moiety

R'''-C(-)H(CH₂)_vC(-)H(CH₂)_xC(-)H(CH₂)_y-CH₃ of this formula;

at least one of R' and R'' is C₁ to C₃ alkyl; when R''' is C₁, the sum of v + x + y is at least 1; and when R''' is H, the sum of v + x + y is at least 2; and

in at least 60% of said alkylarylsulfonate surfactant system, A is attached to the moiety

$R'''-C(-)H(CH_2)_vC(-)H(CH_2)_xC(-)H(CH_2)_y-CH_3$ in the position which is selected from positions alpha- and beta- to either of the two terminal carbon atoms thereof; and

wherein further said alkylarylsulfonate surfactant system has at least one of the following properties:

said alkylarylsulfonate surfactant system has a ratio of nonquaternary to quaternary carbon atoms in the moiety

$R'''-C(-)H(CH_2)_vC(-)H(CH_2)_xC(-)H(CH_2)_y-CH_3$ of at least 10:1 by weight, when said quaternary carbon atoms are present; and

there is no more than 40% by weight loss as measured by Hardness Tolerance Test; and

b) from 0.01% to 99.99% by weight of at least one isomer of the linear analog of said alkylarylsulfonate surfactant (a).

5. A surfactant composition according to any one of Claims 1-4 wherein A is selected from the group consisting of:

- i) benzene;
- ii) toluene;
- iii) xylene;
- iv) naphthalene; and
- v) mixtures thereof.

6. A surfactant composition according to any one of Claims 1-5 wherein A is benzene.

7. A surfactant composition according to any one of Claims 1-6 wherein one of R' and R'' is methyl or ethyl.

8. A surfactant composition according to any one of Claims 1-7 wherein one of R' and R'' is methyl.

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9. A cleaning composition comprising
- i) from 0.01% to 99.99% by weight of a surfactant composition according to any one of Claims 1-9; and
 - ii) from 0.0001% to 99.99% by weight of a cleaning additive.

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